

University credit and qualifications framework (UCQF)

[Approved by the University Board for Teaching and Learning on 12 July 2011; subsequently revised following the meeting of the Board on 30 April 2012; further revisions on 31 July 2013 and 23 May 2014]

Introduction

1. In August 2008 QAA published a revised edition of *The framework for higher education qualifications in England, Wales and Northern Ireland (FHEQ)* and a new document *Higher education credit framework for England: guidance on academic credit arrangements in higher education in England*. The latter is a guidance document, intended to outline practice across the sector, and reflect changes at a European level as part of the Bologna process in relation to the amount and level of credit in degrees and other higher education awards.
2. The two publications presented an opportunity to review the University's existing documentation on qualifications and credit. The integrated University credit and qualifications framework (UCQF) is a result of this process and represents the University's interpretation and implementation of the *FHEQ* and *Higher education credit framework for England*.
3. At its meeting on 30 April 2012, the University Board for Teaching and Learning approved a recommendation from the Working Group on Normal Registration and Completion Periods for Degrees that minimum registration, normal completion and maximum registration periods be adopted by all programmes across the University, effective for cohorts entering from 2013 onwards. A new section on Minimum Registration, Normal Completion and Maximum Registration Periods in relation to taught programmes has since been added to the UCQF.
4. This document is intended to be complementary to the *Guidelines on the design of undergraduate and taught postgraduate programmes*.

FHEQ and Higher education credit framework for England

5. The FHEQ is a key part of the QAA's approach to assuring and enhancing academic quality. Alongside separate chapters relating to subject and qualification benchmark statements and programme specifications, the FHEQ is part of the *UK Quality Code for Higher Education, Part A: Setting and maintaining threshold academic standards* and, as such, is a key reference point for Review Teams during Institutional Review.
6. *Chapter A1: The national level of the UK Quality Code for Higher Education*, which includes the FHEQ, can be found on the QAA website at:
<http://www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/quality-code-A1.aspx>.

FHEQ Levels

7. The FHEQ has five levels: three undergraduate levels and two postgraduate levels.¹

FHEQ Level	Typical awards
8	Doctorates
7	Taught, Research & Integrated Masters, MPhil
6	Honours Degrees, Graduate Diplomas and Certificates
5	Diplomas of HE, Foundation Degrees
4	Certificates of HE

Qualification descriptors

8. Each of the five levels has a corresponding 'qualification descriptor' which:
- State the outcomes of the main qualification at each level. A successful student at that level will therefore be expected to be able to demonstrate these outcomes for the award of a particular qualification. Such outcomes will be of particular interest to those designing, approving and reviewing academic programmes (including Review teams). They will need to be satisfied that, for any programme, the curriculum and assessments provide all students with the opportunity to achieve, and to demonstrate achievement of, the outcomes.
 - Demonstrate the nature of change between levels.
 - Provide clear points of reference for academic standards.
9. The qualifications descriptors are, of course, generic statements of the outcomes of study. Where subject benchmarking statements have been produced, these will provide further guidance on outcome expectations. Where no such statements have been produced, or where no one statement is relevant, the qualifications descriptors are a vital reference point.
10. The full text of the FHEQ qualification descriptors is given as **Appendix 1**.

Using the framework

11. Institutions must be able to demonstrate that each of their qualifications is allocated to the appropriate level of the framework. A degree can properly be awarded only when the expectations of the relevant qualification descriptor have been met or exceeded.
12. Institutions should ensure that the name given to any qualification represents appropriately the level of achievement, reflects accurately the field(s) of study, and is not misleading. Institutions should use the titles 'honours', 'masters' and 'doctor' only for

¹ Prior to the revised FHEQ in 2008 the levels were designated by letters – C, I, H, M, D – corresponding with 4, 5, 6, 7 and 8. These now map on to the National Qualification Framework (NQF) which covers all education outside of HE.

qualifications that meet in full the expectations of the qualification descriptors at levels 6, 7 and 8 respectively.

13. Institutions will be expected to be able to demonstrate that all students will gain, on successful completion, qualifications that are awarded in accordance with the framework.
14. Under the Institutional Review methodology, reviewers will wish to see how institutions have embedded the FHEQ into their programme structures, and into their programme approval and monitoring procedures.

Credit

15. The *Higher education credit framework for England*, is the first attempt to draw together sector-wide practice on the amount and type of credit for typical awards made under the FHEQ.
16. For all of the most commonly given awards it specifies the FHEQ level, minimum total credits, and minimum number of credits at the level of the award.
17. The *Higher education credit framework for England* is not part of the *UK Quality Code for Higher Education* and is therefore not binding in the same way as the FHEQ; it does however provide useful information on the amount and type of credit typically required for a particular award.

The University credit and qualifications framework (UCQF)

18. The University credit and qualifications framework (UCQF) (please refer to the table below) is an integrated device which intends to combine the FHEQ, *Higher education credit framework for England* and the University's own regulations relating to credit and qualifications. It is the overarching description of the qualifications and awards which the University provides to students.
19. Schools should therefore ensure that not only do their programmes meet the relevant FHEQ qualifications descriptor, but also that particular qualifications meet with the University's credit requirements – both are part of the UCQF.
20. Further detailed requirements for particular programmes, and regulations relating to parts of awards and progression are given in the *Guidelines on the design of undergraduate and taught postgraduate programmes*.

Qualification	Abbreviations	FHEQ Level	Min. total credits	Min. credits at level of qual.
Doctorate	PhD	8	Not credit rated	
Professional Doctorate	DBA, DStat, EngD, EdD, DAgriFood		Not credit rated	
New Route PhD	PhD		Under review	
MPhil/LLM by research	MPhil, LLM	7	Not credit rated	
MPhil by examination	MPhil		360	300
Postgraduate Master	MA, MSc, MA/MSc by Research MRes, LLM, LLM by Thesis MBA, etc.		180	150
Integrated Masters Degree	MEng, MMet, MMath, MChem, MPharm etc.		480	120 ²³
Postgraduate Diploma	PGDip		120	90
Postgraduate Certificate	PGCert		60	40
Postgraduate Certificate in Education	PGCE		180	60
Professional Graduate Certificate in Education	PCGE		60	60
Bachelor's Degree with Honours	BA/BSc/BA(Ed) LLB, BEng (Hons)	6	360	100
Bachelor's Degree (Ordinary)	BA etc.		300	60 ⁴
Graduate Diploma	GradDip		120	100
Graduate Certificate	GradCert		60	60
Foundation Degree	FDEd, FDSci		5	240
Diploma of Higher Education	DipHE	240		100
Certificate of Higher Education	CertHE	4	120	100
International Foundation Programme	IFP	F'dation	140	140

² This was set at 100 Level 7 credits for programmes starting before 2006-07

³ Integrated Masters must also include a minimum of 100 credits at Level 6.

⁴ With a minimum of 100 credits at Level 5.

Masters' degree titles

Effective from intakes commencing in 2015, the following Masters' degree titles shall normally be assigned using the following criteria:

Title	Criteria
MA/MSc	Combined credit weight of dissertation and research methods modules amounts to 90 credits or less.
MRes	Combined credit weight of dissertation and research methods modules amounts to more than 90 credits and does not meet the criteria for an MA/MSc by Research
MA/MSc by Research	Research dissertation with a weight of at least 120 credits; or Research dissertation with a weight of at least 100 credits and a further distinct individual research element (not including research methods) Examiners appointed for individual candidate on basis of expertise in specific topic.
LLM by Thesis	180 credits: wholly assessed by research thesis, which is individually examined. Research methods are not credit-bearing

'Lesser' awards

21. Qualifications may only be awarded to mark the achievement of positively defined outcomes, not as compensation for failure at a higher level, or by default. A lower qualification can be awarded if a student is able to demonstrate the outcomes set out in a qualification descriptor.
22. For example, this allows the University to award an MPhil to a candidate examined for a PhD if the candidate does not meet the standard for a doctoral award, but only if they can demonstrate that they meet the outcomes of the Level 7 qualifications descriptor.

Awards not listed in the UCQF

23. All programmes resulting in a University award should normally be designed to fulfil the requirements of one of the above listed qualifications.
24. Credit bearing individual or combinations of modules which are offered to students but do not meet the requirements of any of the above listed qualifications can result in an award of University credit represented by a 'Certificate of credit'. The certificate should bear the University's device and state the amount and level of the credit achieved, and the title of the module or modules studied. In these circumstances a programme specification is not required but module descriptions should be in place and

appropriately approved. The module or modules can be advertised as ‘validated by the University of Reading’.

25. Should it be intended that individual modules be able to act as ‘building blocks’ towards a qualification listed in the UCQF then this needs to be captured in the programme specification of an existing programme (if appropriate), or a new, specifically designed, programme specification will need to be created. The new or amended programme will need to be approved in accordance with normal procedures.
26. In certain circumstances the University may approve a programme resulting in an award which is not listed in the UCQF. If a School wishes to develop such a programme it should explain why an award outside of the UCQF is required in the programme approval documentation. Justification may, for example, relate to a long standing programme which has strong external recognition in its current form or the institution of a newly required or recommended qualification from a professional body.
27. In all cases where a programme is created leading to an award which is not listed in the UCQF, the following should be adhered to:
 - a. No award can be made for study of less than 30 credits (see paragraph 24 above regarding alternative ‘Certificates of Credit’ in these circumstances)
 - b. Caution should be taken in the use of qualification titles that have commonly accepted meanings in the higher education sector such as ‘certificate’ or ‘diploma’. When these are used they should always be qualified, normally with the word ‘Professional’ i.e. ‘Professional Certificate’ although other qualifiers are acceptable if required or preferred by an external professional body.
 - c. Where there are two related awards ‘Certificate’ should be used in relation to the lesser of the two awards and ‘Diploma’ in relation to the higher.
 - d. A separate programme specification should be in place.

Non-credit bearing programmes

28. If a programme or short course is offered that is not credit bearing it is important that the following conventions are followed to avoid any confusion with formal University awards:
 - a. Programmes must not be titled or advertised as a ‘Certificate’ or ‘Diploma’ unless in receipt of external professional recognition or accreditation which specifies the use of that title.
 - b. Programmes can be advertised as ‘recognised by the University of Reading’ but not ‘accredited’ or ‘validated’.
 - c. Participants can be issued with a ‘Certificate of attendance’ (if not assessed) or ‘Certificate of completion’ (if assessed).
 - d. Where participants receive a Certificate, the standard certificate templates available from the Design and Print Studio should be used⁵.
29. It is strongly advised that proposers of non-credit bearing programmes discuss course title and certification with the Centre for Quality Support and Development (g.m.randall@reading.ac.uk). Where a non-credit bearing course is offered to or with an external organisation, the provision should normally be underpinned by a contract.

⁵ <https://www.reading.ac.uk/closed/dps/Visualidentity/dps2-visualidentity-certdownload.aspx>

Minimum Registration, Normal Completion and Maximum Registration Periods for Programmes

30. The University Board for Teaching and Learning has agreed that the minimum registration, normal completion and maximum registration periods specified below should be adopted across all taught programmes, with effect from cohorts entering in October 2013. Minimum and maximum registration periods for postgraduate research programmes are specified in the relevant Ordinance.
31. The minimum registration, normal completion and maximum registration period should be considered as part of the programme approval process and should be stated in the Programme Specification for every programme. Programmes should not be designed to either undercut the minimum registration period or exceed the maximum registration period for the type of qualification and mode of delivery.
32. In very exceptional circumstances, the University Board for Teaching and Learning has the power to vary the boundaries for an individual programme where a strong case is made. Any new programmes, or programmes currently operating outside of the specified boundaries that wish to continue doing so, are required to submit a case to the University Board for Teaching and Learning.
33. Where a student is required/ permitted to repeat a Part, the maximum period of registration for the programme should be extended accordingly for that student.

Full time programmes

34. All full time programmes should adhere to the following minimum, normal completion and maximum registration periods. For any specific programme delivered in full time mode, the minimum, normal and maximum registration periods should normally be the same.

Qualification	Min/Normal/Max
Certificate of Higher Education	12 months
Diploma of Higher Education	24 months
Foundation Degree	24 months
Graduate Certificate	3 to 6 months
Graduate Diploma	6 to 12 months
Bachelor	36 months
Bachelor (with year abroad, industrial placement, in Education etc.)	48 months
Integrated Master	48 months
Integrated Master (with year in industry or equivalent)	60 months

Postgraduate Certificate	3 to 6 months
Postgraduate Diploma	6 to 12 months
Master	12 to 24 months

Part time programmes

35. All part time programmes should adhere to the following minimum, normal completion and maximum registration periods.

Qualification	Minimum registration period	Normal completion period	Maximum registration period
Certificate of Higher Education	12 months	24 months	36 months
Diploma of Higher Education	36 months	48 months	60 months
Foundation Degree	36 months	36 months	36 months
Graduate Certificate	6 months	12 months	24 months
Graduate Diploma	12 months	24 months	36 months
Bachelor	48 months	72 months	84 months
Postgraduate Certificate	6 months	12 months	24 months
Postgraduate Diploma	12 months	24 months	36 months
Master	18 months	24 months	36 months

Flexible programmes

36. Wider boundaries are permitted for programmes that are not delivered over a set schedule and require more flexibility. All such 'flexible' programmes should adhere to the following minimum, normal completion and maximum registration periods.

Qualification	Minimum registration period	Normal completion period	Maximum registration period
Postgraduate Certificate	6 months	12 months	24 months
Postgraduate	12 months	24 months	42 months

Diploma			
Master	18 months	36 months	63 months

Using the UCQF

37. The UCQF is expected to play a major part in all of the following processes.

Programme development and programme specifications

38. Further detailed requirements for particular programmes, and regulations relating to parts of awards and progression are given in the *Guidelines on the design of undergraduate and taught postgraduate programmes*, but the following general principles apply:

Modules

39. Schools should, for each module in a programme, indicate its specific level in the 'Programme Content' section of each programme specification. This level must be appropriate to the relevant level of the UCQF and the related qualifications descriptor. For example, the majority of modules (making up at least 100 credits) in Part 3 of a Bachelor's Degree programme will need to be pitched at Level 6.
40. Schools should therefore assure themselves that each module description is informed by the learning outcomes of the qualifications descriptor relevant to the level at which the module is pitched. It is no longer possible to offer the same module at two different levels. Similar module content can be taught at different levels but the modules should be assigned different module codes and a clear distinction in the intended learning outcomes and the assessment should be made.

Programmes

41. All programmes and their programme specifications should be compliant with the UCQF and any revisions to these programmes should ensure that this compliance is retained.
42. Schools must ensure that the intended learning outcomes in their programme specifications match with the relevant qualification descriptor'. For example, Outcomes for Bachelor's degrees with Honours should therefore meet the Level 6 outcomes.
43. You must also ensure that learning outcomes at the end of Part 1 and Part 2 meet the Level 4 and Level 5 outcomes respectively.
44. Schools should also ask themselves whether the programme curricula and the assessments allow all students the opportunity to achieve and demonstrate achievement of the outcomes.
45. Schools which offer Postgraduate Masters programmes, Integrated Masters programmes or Postgraduate Diplomas or Certificates, will need to ensure that such programmes are correctly positioned to meet the Level 7 descriptor.

New programme scrutiny

46. As referred to in the University's *Approval for new programmes* scrutiny panels will consider:

- if the aims stated in the programme specification are translated into clear, appropriate and achievable learning outcomes throughout the parts of the programme;
 - if it is clear how the aims and learning outcomes are to be achieved through the design and content of the curriculum;
 - how the qualifications descriptors in the UCQF have informed the development of the programme and its intended learning outcomes; and
 - whether the stated learning outcomes of the programme are appropriate for the level of award with regard to the relevant qualifications descriptor.
47. Faculty Boards for Teaching and Learning should assure themselves that Schools have addressed the UCQF when approving final versions of new programme specifications;

Periodic review

48. The University's *Requirements for the periodic review of programmes* includes guidance on addressing the UCQF. Periodic review panels will consider:
- whether the aims and intended learning outcomes of the degree programmes, as stated in programme specifications, are clear and appropriate, and whether key transferable skills been identified;
 - whether the aims are translated into appropriate and attainable learning outcomes throughout the parts of the programme
 - whether the programme team has addressed the UCQF;
 - whether the learning outcomes are appropriate to the relevant qualifications descriptor in the UCQF;
 - whether it is clear that the aims and learning outcomes are attained;
 - the evidence that the standards achieved by learners meet the minimum expectations for the awards, as measured against any relevant subject benchmarking statements and the UCQF.

QAA Institutional Review

49. The FHEQ is a vital reference point within Institutional Review and the UCQF is the University's main mechanism for implementing the FHEQ.
50. The Institutional Review team will essentially make judgements in several areas (*Institutional review of higher education institutions in England and Northern Ireland: A handbook for higher education providers*), of which the most relevant to the UCQF are:
- the effectiveness with which the institution assures its threshold academic standards, defined as 'the minimum acceptable level of achievement that a student has to demonstrate to be eligible for an academic award.' The threshold standards, as reflected in levels of achievement, are set out in the *UK Quality Code for Higher Education*, and in particular in *Chapter A1: The national level* containing the FHEQ and *Chapter A2: The subject and qualification levels* on subject benchmark statements;
 - from 2012-13, the quality of public information, including that produced for students and applicants. Institutional Review will consider the nationally agreed public information set.
51. When Review teams make their judgments, they will:

“take into account whether broad **expectations** have been met. These expectations are in turn made up of **factors** which will help reviewers decide whether expectations have been met. The factors act as guidance for the sorts of processes, structures, policies, procedures and outputs which an institution should have in place to safeguard standards and quality. Both the expectations and the factors derive directly from the reference points in the UK Quality Code for Higher Education and other external reference points. The factors are not a checklist. Reviewers will appreciate that the precise details of how an expectation might be addressed may vary from institution to institution”.

52. In relation to academic standards, the Review team will consider whether the following expectation has been met:

“Each qualification (including those awarded under collaborative arrangements) is allocated to the appropriate level in the FHEQ”,

and, more specifically, will consider the following factors:

“Whether outcomes of programmes match the expectations of the qualifications descriptors.

Whether there is sufficient volume of study to demonstrate that learning outcomes can be achieved”.

53. In determining how well institutions manage the threshold standards of awards, review teams will “expect to see awards aligned to the threshold standards set out in the FHEQ, and in the relevant subject benchmark statement, where available.

In addition, professional, statutory and regulatory bodies (PSRBs) set standards for courses that they accredit. Where institutions claim PSRB accreditation for their programmes, review teams will explore how accreditation requirements are taken into account in the setting of standards and how accurate expectations about accreditation are conveyed to students.”

54. Reviewers will therefore assess whether:

- Each qualification (including those awarded under collaborative arrangements) is allocated to the appropriate level in the FHEQ;
- Use of external examiners is strong and scrupulous;
- Design, approval, monitoring and review of assessment strategies is effective in ensuring that students have the opportunity to demonstrate learning outcomes of the award;
- Design, approval, monitoring and review of programmes enables standards to be set and maintained and allows students to demonstrate learning outcomes of the award;
- Subject benchmark statements and qualification statements are used effectively in programme design, approval, delivery and review to inform standards of awards;
- Information about academic standards and quality is made publicly available.

Appendix 1

FHEQ Qualification descriptors

Descriptor for a higher education qualification at level 4: Certificate of Higher Education

The descriptor provided for this level of the FHEQ is for any Certificate of Higher Education which should meet the descriptor in full. This qualification descriptor can also be used as a reference point for other level 4 qualifications.

Certificates of Higher Education are awarded to students who have demonstrated:

- knowledge of the underlying concepts and principles associated with their area(s) of study, and an ability to evaluate and interpret these within the context of that area of study
- an ability to present, evaluate and interpret qualitative and quantitative data, in order to develop lines of argument and make sound judgements in accordance with basic theories and concepts of their subject(s) of study.

Typically, holders of the qualification will be able to:

- evaluate the appropriateness of different approaches to solving problems related to their area(s) of study and/or work
- communicate the results of their study/work accurately and reliably, and with structured and coherent arguments
- undertake further training and develop new skills within a structured and managed environment.

And holders will have:

- the qualities and transferable skills necessary for employment requiring the exercise of some personal responsibility.

Descriptor for a higher education qualification at level 5: Foundation Degree

The descriptor provided for this level of the FHEQ is for any Foundation Degree which should meet the descriptor in full. This qualification descriptor can also be used as a reference point for other level 5 qualifications, including Diplomas of Higher Education, Higher National Diplomas, etc.

Foundation Degrees are awarded to students who have demonstrated:

- knowledge and critical understanding of the well-established principles of their area(s) of study, and of the way in which those principles have developed
- ability to apply underlying concepts and principles outside the context in which they were first studied, including, where appropriate, the application of those principles in an employment context
- knowledge of the main methods of enquiry in the subject(s) relevant to the named award, and ability to evaluate critically the appropriateness of different approaches to solving problems in the field of study

- an understanding of the limits of their knowledge, and how this influences analyses and interpretations based on that knowledge.

Typically, holders of the qualification will be able to:

- use a range of established techniques to initiate and undertake critical analysis of information, and to propose solutions to problems arising from that analysis
- effectively communicate information, arguments and analysis in a variety of forms to specialist and non-specialist audiences, and deploy key techniques of the discipline effectively
- undertake further training, develop existing skills and acquire new competences that will enable them to assume significant responsibility within organisations.

And holders will have:

- the qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and decision-making.

Descriptor for a higher education qualification at level 6: Bachelor's degree with honours

The descriptor provided for this level of the FHEQ is for any bachelor's degree with honours which should meet the descriptor in full. This qualification descriptor can also be used as a reference point for other level 6 qualifications, including bachelor's degrees, graduate diplomas etc.

Bachelor's degrees with honours are awarded to students who have demonstrated:

- a systematic understanding of key aspects of their field of study, including acquisition of coherent and detailed knowledge, at least some of which is at, or informed by, the forefront of defined aspects of a discipline
- an ability to deploy accurately established techniques of analysis and enquiry within a discipline
- conceptual understanding that enables the student:
 - to devise and sustain arguments, and/or to solve problems, using ideas and techniques, some of which are at the forefront of a discipline
 - to describe and comment upon particular aspects of current research, or equivalent advanced scholarship, in the discipline
- an appreciation of the uncertainty, ambiguity and limits of knowledge
- the ability to manage their own learning, and to make use of scholarly reviews and primary sources (for example, refereed research articles and/or original materials appropriate to the discipline).

Typically, holders of the qualification will be able to:

- apply the methods and techniques that they have learned to review, consolidate, extend and apply their knowledge and understanding, and to initiate and carry out projects
- critically evaluate arguments, assumptions, abstract concepts and data (that may be incomplete), to make judgements, and to frame appropriate questions to achieve a solution - or identify a range of solutions - to a problem

- communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.

And holders will have:

- the qualities and transferable skills necessary for employment requiring:
 - the exercise of initiative and personal responsibility
 - decision-making in complex and unpredictable contexts
 - the learning ability needed to undertake appropriate further training of a professional or equivalent nature.

Descriptor for a higher education qualification at level 7: Master's degree

The descriptor provided for this level of the framework is for any master's degree which should meet the descriptor in full. This qualification descriptor can also be used as a reference point for other level 7 qualifications, including postgraduate certificates and postgraduate diplomas.

Master's degrees are awarded to students who have demonstrated:

- a systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study or area of professional practice
- a comprehensive understanding of techniques applicable to their own research or advanced scholarship
- originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline
- conceptual understanding that enables the student:
 - to evaluate critically current research and advanced scholarship in the discipline
 - to evaluate methodologies and develop critiques of them and, where appropriate, to propose new hypotheses.

Typically, holders of the qualification will be able to:

- deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences
- demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level
- continue to advance their knowledge and understanding, and to develop new skills to a high level.

And holders will have:

- the qualities and transferable skills necessary for employment requiring:
 - the exercise of initiative and personal responsibility
 - decision-making in complex and unpredictable situations
 - the independent learning ability required for continuing professional development.

Descriptor for a higher education qualification at level 8: Doctoral degree

The descriptor provided for this level of the FHEQ is for any doctoral degree which should meet the descriptor in full. This qualification descriptor can also be used as a reference point for other level 8 qualifications.

Doctoral degrees are awarded to students who have demonstrated:

- the creation and interpretation of new knowledge, through original research or other advanced scholarship, of a quality to satisfy peer review, extend the forefront of the discipline, and merit publication
- a systematic acquisition and understanding of a substantial body of knowledge which is at the forefront of an academic discipline or area of professional practice
- the general ability to conceptualise, design and implement a project for the generation of new knowledge, applications or understanding at the forefront of the discipline, and to adjust the project design in the light of unforeseen problems
- a detailed understanding of applicable techniques for research and advanced academic enquiry.

Typically, holders of the qualification will be able to:

- make informed judgements on complex issues in specialist fields, often in the absence of complete data, and be able to communicate their ideas and conclusions clearly and effectively to specialist and non-specialist audiences
- continue to undertake pure and/or applied research and development at an advanced level, contributing substantially to the development of new techniques, ideas or approaches.

And holders will have:

- the qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and largely autonomous initiative in complex and unpredictable situations, in professional or equivalent environments.